## AMENDMENTS TO THE SPECIFICATION

**In the Specification:**

At page 8, please replace first paragraph (lines 1-8) with the following:

--16 obtains such signature and compares it to a database of historical overlay signatures stored in a signature store 18. The historical database of signatures provides for M number of profiles (M being an integer) relating to various T-top gate states. The monitoring system 16 looks for similarity between the current signature and at least one of the historical signatures. Based on such comparison and other extrinsic data (*e.g.*, process parameters) as well as other analytical tools, the monitoring system 16 makes an inference as to the current state of the T-top gate [15] (*e.g.*, if T-top gate is forming correctly).

At page 10, please replace first paragraph (lines 1-5) with the following:

"the T-top gate as it is being formed. Monitoring involves directing light 32 at the wafer 60 and collecting light reflected 34 from the wafer [34]. The reflected light 34 is transformed or generated into a signature. The generated signature may then be compared to the signature store to determine the dimensions and the state of the T-top gate at that particular moment in the fabrication process.

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